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April 22, 2009

Mary D. Nichols, Chairwoman
c/o Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chairwoman Nichols,

I am writing to express my concern with Appendix C11 of "Proposed Regulation to Implement the Low Carbon Fuel Standard, Volume II, Appendices" by the Air Resource Board (ARB) from the California Environmental Protection Agency. Appendix C11 describes a "Co-product Credit Analysis when using Distiller's Grains Derived from Corn Ethanol Production". The Appendix was prepared by ARB staff and describes the feeding value of distillers dried grains with solubles (DDGS) when used in diets fed to dairy, cattle, poultry, and swine. As a swine nutritionist for the 7th largest pork producer in the United States I would like to share my concerns regarding the accuracy of the information represented in Appendix C11.

Concern # 1: Appendix 11 indicates that ARB staff conducted an extensive review of the literature however only one reference is included for feeding DDGS to swine. This reference is 16 years old and would not be applicable to co-products generated from newer ethanol plants. Due to the expansion of ethanol production in the U.S. and competition for corn as a feedstock there has been a considerable amount of research conducted in this area. For example, in a recent review of feeding DDGS to swine, a total of 83 references that describe research conducted to evaluate the use of DDGS in diets fed to swine were identified (Stein and Shurson, 2009).

Concern # 2: Appendix 11 suggests that "Although DDGS contains more protein than corn, less of the protein in DDGS is nutritionally available to the animal: livestock are only able to digest and metabolize 16.8-28.8% of the DDGS protein fraction." This statement regarding protein availability is not accurate. The digestibility of protein from DDGS is between 50 and 60%, which is comparable to corn (Stein et al. 2006).

Concern # 3: Appendix 11 suggests that “High phosphorus levels in DDGS also lead to increased excretory phosphorus, a likely manure management issue for the livestock farmer.” A benefit of using DDGS in swine diets is that it reduces the excretion of phosphorus because of the greater digestibility of phosphorus in DDGS compared with corn and soybean meal. Because of this there is less of a requirement for adding additional phosphorus to the diet. This results in a cost savings because phosphorus is a very expensive nutrient.

Concern # 4: Appendix 11 suggests that “Diets containing high levels of phosphorus should include a calcium source such as limestone to prevent urinary calculi, particularly in hogs”. This is news to me given that our company has been feeding aggressive levels of DDGS for the last four years and we have not experienced problems with urinary calculi. Swine diets include a calcium source such as limestone in order to meet the pig’s requirement, regardless of DDGS inclusion.

Concern # 5: Appendix 11 suggests that “The small particle sizes can predispose hogs to gastric ulcers when DGS is used in the feed.” There is no scientific evidence to support this statement. Similar to urinary calculi our veterinary staff has not documented an increase in gastric ulcers with feeding DDGS within our system.

Concern # 6: Appendix 11 suggests that “From the analysis presented above, it is evident that significant barriers to the widespread adoption of DDGS as livestock feed exist.” Not sure how one can make this statement given the increase in DDGS usage in livestock feeds. There has been a significant amount of research conducted in recent years that has increased our understanding of how to feed DDGS in swine diets. Like other swine producers we have embraced the use of DDGS because it is cost competitive compared to other feed ingredients.

In closing I hope you recognize that the ARB has failed in providing accurate information to policy makers aimed at helping the environment. The ARB has completely misrepresented the utilization of DDGS in livestock feeds simply because they did not take the time to get the facts around the matter. I would ask that ARB make every attempt to rectify this information to ensure environmental sustainability.

Sincerely,



Aaron Gaines, Ph.D.

Vice President, Production Resources & Operations
The Maschhoffs LLC